CATS NEWSLETTER

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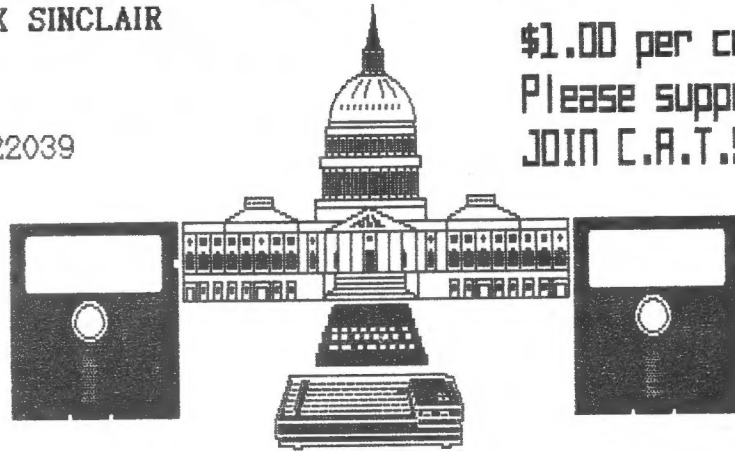
VOLUME 6
NUMBER 2

JUNE, 1988

JUNE 11 MEETING: ELECTIONS

Remember the words of the old Chicago politician,
"Vote early, and vote often!"

IN THIS ISSUE

CONTRIBUTORS

Tom Bent	Vernon Smith
John Riley	George Rey
Mannie Quintero	Ed Weppler
V. Lee	Peter Hale
Ted Osheroff	

PRESIDENTIAL RAMBLINGS

ELECTIONS THIS MONTH!!

This month marks the end of the current administration. I would like to thank all of the officers who have worked for the group this past year. My thanks go out to the other members who have contributed to the efforts of CATS.

My thanks goes out to each member for their part in making CATS a real entity in the Sinclair world of computing and, in fact, the entire world of computing.

I look forward to helping the new set of officers in any way I can. I expect that the Hardware workshop will continue. We are looking for interest in converting or alternating that workshop with a software workshop. Have we enough interest?

WHAT'S UP NEXT YEAR??

We are looking for your input into how you would like to see the meeting go and what subjects to have seminars on. We normally have the core of the issue in an article in the newsletter, followed up by a more in-depth discussion at the meeting. We need your input to plan next year. Please drop George Rey a line with your ideas if you can't make the meeting. This is, after all, your group.

This month's hardware project is a QL keyboard cover, courtesy of Lou Tanney, a CATS member from Bellefonte, PA. There are no electronics involved in this one!! But you had better bring your Dremel drill and a fine file. There will also be some RGB buffers around too.

FROM THE EDITOR

Well, summer is here. How do I know? Most of our usual contributors, Mark Fisher, Pieter van Dijk, and Hank Dickson, to name a few, are absent from this issue. An editor, of course, is a pack rat so I had some material stored away for situations such as this. First, the 2068 Library listing from the April issue is "finally" concluded this month. Even if you don't get the tapes, John Riley's comments on each program makes for enjoyable reading. If he hadn't gone into the ministry, I'm sure he would have ended up writing ad copy on Madison Avenue. Please see Page 8 for the listing of programs we will have at the meetings for the next 5 months. Also Mannie Quintero and George Rey are working up a hardware library. Details on Page 8. Ed Weppler has another 2068 program, this time a refinement of the Spectramonitor program in Volume 7 of our library. TS 1000 users, we haven't forgotten you. The 24K internal non-volatile memory hardware project should be a welcome addition to your bag of tricks. Finally, a review of Text87 by Peter Hale of the Boston TSUG. Peter is the author of the Tax-I-QL program. Please note the article on SNUG in the Potpourri section and let Mel Nathanson know how you feel.

At this meeting we will hold the annual elections, so please attend. Another important function will be a discussion (free-for-all?) to determine the program content for the next year. If you have an idea, let us know right now. If you mutter and grumble later on, that you don't like what is being presented, and you didn't participate, you have only yourself to blame.

Finally, I will make my monthly appeal for articles. The ATSU Newsletter has gone out of business. Why should that concern you? Well, they ran out of material from their members. They have fallen back on reprinting articles from their newsletter exchange on a local bulletin board (BBS). I, for one, wouldn't want to be the editor if it consisted of merely clipping articles from other newsletters and pasting them up to make ours. So, "keep those cards and letters coming"!

Vernon

JUNE MEETING AGENDA

11:00 Hardware Workshop

1:00 to 2:00 Lunch

2:00 to 2:30 General Meeting

2:30 to 3:30 Programs for Next Year: Open Forum

3:00 to 4:30 Open discussion

4:30 Adjourn

NEWSLETTER SUBMISSIONS

Submissions for the newsletter can be in hard copy, with columns 3 1/2 inches wide or, preferably, magnetic media. For the QL, microdrive cartridge, 5 1/4" DS/DD or Quad density disks, or 3 1/2" disks. For the 2X81, TS1000, or 2068, cassettes only, with titles on the box.

Send material to:
Editor, CATS Newsletter
Box 467
Fairfax Station, VA 22039

S.N.U.G.
Sinclair Northamerica Users Group

WHAT IT IS

The intent of SNUG is to provide a forum for exchange of ideas. It would be a source of information, such as a listing of active members, active Users Groups, Sinclair specific Bulletin Boards, an active library of Public Domain software, and a listing of available shareware and freeware. Later on we hope to propose an industry wide standard of hardware and software compatibility. So as not to re-invent the wheel, and to do this in the shortest amount of time, we are going to try and use an already established national group, such as CORSA (Corvair Owners Assn.) as a model to base our group on. SNUG would act as an umbrella Organization, with Regions being developed to tie in with established groups in those areas.

WHAT IT ISN'T

It is the intent of the organizers NOT to infringe or supersede any already established User Group or Vendor. It is intended to show some strength to the industry that Sinclair is not dead, and that the mere fact that we can get this Organization together will prove that we can stick together and grow and prosper. We look at this as an enhancement to activities that have been planned on. Hopefully a Northamerican Calendar of events could be established to help co-ordinate any future plans and events. It is not designed to take anything away from anyone.

WHAT TO DO

We need the support of EVERY SINGLE SINCLAIR USER! Whether you reside in Canada, the U.S., or Mexico, or for that matter any-

where, we need to know how you feel and what you want in this Organization. This is your opportunity to be heard...your comments, criticisms, ccomplaints, or praises. What we have here is nothing more than an idea. Nothing at this time is set in concrete. We are more than open to suggestions. To make it work, these ideas of yours have to be forwarded immediately. We are putting a time limit until June 30, 1988. If there is no support, then we will not proceed further. If there is input, we will update on a monthly basis to whoever will put the information in print. So lets hear from you soon!

TEMPORARY CONTACT FOR INFORMATION

MEL NATHANSON
7515 ARBORDALE DRIVE
PORT RICHEY, FLORIDA 34668
(813) 863-5552

Editor's note: SNUG was discussed at the last Executive Committee meeting and it was decided to encourage members to contact Mel Nathanson personally, if they are willing to support the idea. Please note the 6/30/88 deadline.

COMMITTEE PRESENTS NOMINEES

At the May 14th, 1988 meeting of C.A.T.S. the following people were announced to be nominated for officers for the term July 1, 1988 through June 30, 1989:

President − − − − − − − − − Bill Barnhart

First Vice President − − − − Hank Dickson

Second Vice President − − − − George Rey

Secretary − − − − − − − − − Mike Warmick

Treasurer − − − − − − − − − − Ruth Fegley

These nominations are being done in accordance with Art.VI,Sect.2 of the CATS Constitution (amend. 12 Sep 87).

Also, at the June meeting, anyone who wishes to run for any office may nominate themselves or be nominated at the time of the elections.

The Nomination Committee;
Bill Barnhart
David Book
Ted Osheroff

The 2068 Library: Compiled and Annotated by John Riley

EDITOR -- A utility for creating user-defined graphics.
UDG -- Does the same as the program above, with a slightly different approach.
CHARACTERS -- Throws the 2068 character set onto an 8x8 grid, and gives the numerical value of each line of pixels.
64 COLUMN -- A basic program that shifts the 2068 into 64-column mode. Too slow to be useful, but it is educational.

Volume 3 --- More Utilities
HEADSCAN -- A header-reader program that is a must for anyone who wants to transfer multi-load programs to another tape or disc format.
SCANNER -- A very interesting program that takes an audio input from the MIC jack and gives a running graphic reading of it.
VIDEOFILE -- A computerized filing system for your videotape library.
TAPEDCHED -- Computerizes your weekly videotaping schedule.
BANKREC -- A computer checkbook balancing program.
LISTS -- Simply the best public domain data base that I know of for the 2068. The only way to beat it is to buy ProFile.
FORMULARY -- A darkroom-chemistry mixing guide for photographers who do their own developing.
FIRSTLOAD -- the mc program that translates TS1000 programs into 2068 programs.
MCLOADER -- A simple mc loader.
BOLD -- Redefines the 2068 character set into fatter letters and symbols. A 2040 printer will then print them that way.
FLIP -- Rotates a screen 90 degrees every time you press the button!
CRYPTO -- Creates a simple substitution cypher that you define.
HEX -- A hexidecimal loader.
HEXSPEC -- A Spectrum hex loader. I s'pose it would work with a 2068 too.
TOMORROR -- A primitive word

processor that has a nice personality.
INTERPOLATE -- Interpolates a grapg from the data you supply.

****** NOTE ****** THE NEXT THREE PROGRAMS ARE SOME OF JACK DOHANEY'S FAIRWARE. IT IS GOOD STUFF!! I URGE YOU IF YOU FIND YOURSELF USING THESE TO SEND A FEW DOLLARS TO JACK IN GRATITUDE FOR DOING THESE THINGS FOR US.

EXTENDED BASIC -- Adds nine new commands to our standard basic, which significantly enhance the 2068's sound and animation facilities.
KEYWORD -- Disables the single-stroke keyword system and allows one to type in Basic commands directly from the keyboard, jest like thee other Other Guys computers.
TOOLKIT -- A programmer's utility which includes Renumber, Remkill, and a Compactor.

Volume 4 --- SPECTRUM PROGRAMS
ANIMATE -- A graphics utility which generates a 3D picture from your 1D bisection, rotates and recreates this picture 8 times, and then pages these pictures sequentially to achieve a spinning animation effect.
GALACTOIDS -- A space-invader type of game that is fast, furious, and infuriatingly difficult.
BLOCKMAN -- A more sedate but still challenging scrolling of subsets of the game board.
WINDOWS -- This impressive utility comes in three parts -- an introduction, a demo, and the machine code itself, which gives the Spectrum some of the same windowing capabilities of the QL! After watching the demo, break into it to see how the routines are called through CHR$. Further documentation is available from the library upon request.
THE FLYING FORMULA -- This was a "giveaway" program from ZX Computing. Nicely executed and fun to play.

Volume 5 --- More 2068 Utilities

T/PI Pads -- For you electronics hackers, a program that helps you to calculate exactly what capacitor to add to your circuit, and then draws a diagram.

CONVERT -- Input a number and get back the equivalent value in several counting systems, such as decimal, hex, and binary.

PIANO -- Create music on your 2068 and then play it back to your friends and/or enemies.

CLOVER -- A clever little drawing demo that draws a clover using some rather complex calculations.

POLYGON -- A "least squares polynomial fit" program.

CALENDAR -- Calculates a number of interesting facts about dates that you input, such as the day a particular date fell (or will fall) on, and the number of days elapsed between two dates.

NODES -- Draws a complex polygonal figure around size and node specifications that you input.

WRITE -- Another simple but effective word processor.

ALBUM -- A program that allows you to store five screens of artwork, paging continually through them. Includes demo pictures.

BOXLABEL 1 & 2 -- Produces inserts for your cassette boxes, with program #1 catering to 2040 users and #2 modified for an 80 column printer. Includes the AERCO printer driver.

CALCULATOR -- A Handy program if you have misplaced your pocket calculator.

Volume 6 --- Mixed Bag

MTOS (utility) - This is a program development tool that can come in handy for anyone who is creating a new program or modifying an old one. For a fuller description see the letter later in this newsletter by its author, CATS member T.G. Morley. It is available to CATS members only by special arrangement with Mr. Morley, but non-members can purchase through Sharp's of VA.

TEXTYPE (word processor) -- A nice little program that lets you print out your hardcopy in any of four different typestyles (regular, bold, modern, or italic) if you use a 2040 printer. WIth a little creative wangling it can be adapted to print out to an 80-column printer, too.

3D WORD (graphics) - Creates 3D words out of little box-girder-like udgs for use in article titles, etc. Look for an example in one of the headlines in this issue.

3D DRAW (graphics) - A program which will, if you learn its quirks, draw for you a wide variety of 3D objects on an x-y grid. It's fun to watch.

CURSOR (demo) - Will teach you how to put other symbols inside the 2068 flashing cursor.

DUB (utility) - If you have a good pair of tape recorders and IF you get the volumes adjusted right, this program will PERFECTLY COPY most any program by reading the signal coming into the EAR port, cleaning it up, and feeding it directly out through the MIC port. This could be the answer to the prayers of those of you having trouble making archival copies of your programs!

ANIMATE (demo) - Shows how you can use BASIC to give life to a spritely (pun!) little marching man.

FILL (demo) - Fills cursor-selected spaces with color, pixel by pixel. Rather slow, but there is a lot to learn from examining the listing.

BLOKMAN (game) - A slightly watered down version of the Spectrum game that was included in Volume 4, this time for the 2068. Joystick in left port.

PACMAN (game) - It had to happen sooner or later! This version would be exciting to persons 6 years and younger. Use arrow keys.

BELLTOWER (game) - Now this one is pretty tough! A variation on the platforms and ladders type of game. It contains a very nice user-programmable keys function which could come in handy in your own programs.

GHOTI (game) - You are a fish, eating bubbles and avoiding hungry turtles to survive. Use arrow keys.

ARTIC EXPLOYER (game) - Avoid the pitfalls and win through to the North Pole. Controls: 0=Left,

P=Right, 0+CS (capshift) = Jump Left, P+CS = Jump Right.
PAWS (game) - You are a cat. Eat the mice but avoid the rats. Use Right joystick port.
WAGONERS (game) - A faster-than-the-speed-of-snails race between three wagons. You bet on the outcome.
CURSOR ADVENTURE (text adventure) - Hey! Our first text adventure!
WORDSQUARE (game) - A hidden-word puzzle generator, with less capacity than the one found in Volume One, but faster in producing the result.
ADVERTISING DISPLAY (utility) - Large letters flow from right to left across the screen in an unending loop. You can input the message that the letters spell out. A Spectrum version is in Volume Seven.
SPANISH TUTOR (educational) - A "99% complete" version of the program that was included in Volume 2.
SPANISH BUILDER I (educational) - Vocabulary practice for what you learned from SPANISH TUTOR.
SPANISH BUILDER II (educational) - More vocabulary practice.
GEOGRAPHY (educational) - Refer to Volume 2

Volume 7 --- MORE SPECTRUM SOFTWARE
WAR OF THE SHIRES (adventure game) - This text-and-graphics adventure is a sort of poor man's War in the East. You can manipulate several characters and their armies to try and defeat the enemy. Well done and a challenge to play.
KRAKATOA 2012 (game) - The Krakatoa volcano is about to blow up again, because some nasty aliens have been fooling with it. Your mission - rescue the islanders and destroy the aliens. Use arrow keys.
RIFLE RANGE (game) - A shooting gallery game. This one is popular with children. Use any key to fire the rifle.
SCROLLS (utility) - Does a very fast vertical scroll within a defined window on the screen.
SCROLL (utility) - Another type of scroll that "creeps" a block of text cross the screen.
CAPMAN (game) - The Spectrum version of Pacman. Written in machine code, it is much faster than the 2068 version.
ADVERTISING DISPLAY (utility) - Same as the program of the same name described in Volume Six.
CLONE (utility) - This is a GREAT UTILITY!! It is similar to the clone utilities on the QL, in that it loads in the program to be cloned a section at a time, then prompts you to put in a fresh tape and save that section. The only programs that balk it are the ones that I can't crack either.
SPECTRAMONITOR (utility) - A nicely done disassembler with mnemonics for the Spectrum.
FORTH (language) - An implementation of forth, for those interested in learning it. The command "DLIST" will list the dictionary that you have to work with.

Volume 8 ---
TRACER - A machine-code routine that places a small window in the upper left corner of the screen that displays what line of a BASIC program is currently running! Great for debugging programs.
RESISTOR - Decodes the banding on resistors.
SOUND EFFECTS- A utility demonstrating a number of different effects made possible by the SOUND command.
CALORIBURN - Calculates the number of calories burned in a given period of time for a wide variety of exercises.
SENDVARS - A format for exchanging information between two modems using MTERM.
VARSLIST - A similar program that allows the exchange of variables between computers via MTERM.
ATTR TABLE - A complete table of the possible combinations of PAPER nad INK attributes available on the 2068.
MULTIFILE - A fairly sophisticated data base program.
METRIC CONVERSION - Converts data from standard measures to metric. Now you can make sense of those European cookbooks!
HEXLOADER - A hex code loading

utility.

MC-MOVE — Moves the starting addresses of relocatable machine code.

ASSEMBLER — A rather nice assembler utility.

DASASSEMBLER — The "flip-side" of the previous program.

COPYCAT — Here is what many of you have been waiting for -- a 2068 version archival copying utility.

MULTITAPE — A utility for making catalogues of the programs on your cassette tapes.

VARS TRACER — An m/c routine that traces and lists the variables used in a BASIC program.

BINARY — Demonstrates the use of binary numbers and calculates them from other number systems.

PHONE DIRECTORY — A telephone number data base.

FILE 1 & MERGE 1 — A pair of programs that are supposed to allow you to "mailmerge" letters to a name-and-address database.

GRID 9X — Draws on the screen and prints out a grid to help in the design of screen graphics and udg's.

LPRINT — A m/c routine that converts all PRINT statements in a program to LPRINT.

CASSETTE LABEL — Generates inserts for plastic cassette boxes.

CIRCUIT — A very nice drawing utility that helps you design electronic circuits. You deaw "wire" lines with keyboard arrows or joystick, and insert device icons by pressing "r" for resistor, "c" for capacitor, etc. Printout to a 2040 is provided.

Volume 9 ---

TRIG GRAPHICS — A program that lets you plot 3D graphic grids using trig functions.

SPRITE — Don't let this one fool you! It "pretends" to crash, and then suddenly a free-flying sprite appears!

COMPLEX 5, 7 & 8 — Three SCREEN$ chained together to demon-strate the possiblilities of the next program.

PYRAMID — Generates over twenty perspectives on a 3D pyramid and then performs a slow animation routine with them.

SPIRAL — A very interesting animated single helix.

DROPPAGES — Rotates 3 plotted screens of pictures.

DROP — Another (faster) routine for plotting functions.

EXP — An animation routine that rotates 4 screens of exponent plots.

EXP 2 & EXP 3 — These are my favorites of the animated images in this volume. From two different perspectives these pictures PULSATE like heartbeats! Fascinating to watch, interesting to study.

SADDLE COSINE — Rotating images of plotted cosine functions.

SADDLE COSINE 1 — Pulsating cosine functions.

RLE GRAPHICS ENCODER/DECODER — Jack Dohaney does it again! A wonderfully well-wrought program for working with RLE (Run Length Encoded) Graphics, which are downloadable from Compuserve and other telecommunications services. To download an RLE file, see the related article in this issue. This program is menu-driven and self-explanatory. IF YOU LIKE AND USE THIS PROGRAM, SEND MR. DOHANEY A CONTRIBUTION! His address can be found by listing one of his programs from Volume 3.

SPACE — A sample SCREEN$ file for use with the RLE Encoder/Decoder. Load by choosing "screen" at the LOAD menu prompt.

SPACEFILE An RLE file version of the same image. Load by choosing "file" at the LOAD menu prompt, and then select the DECODE option.

OUTLOOK

For JUNE - T/S Telecommunications rescheduled (see below). Substitute now -- "Programs for Next Year" and "CYA Workshop (see newsletter notice) Organization Meeting".

For JULY - Hardware Questions and Answers Jamboree -- Mr. Quintero. Get your questions to Mannie pronto, so we can get them printed in the July CATS newsletter.

For AUGUST - Interfacing Sinclair Computers to Peripherals - Mr. Bent. Tom will mop-up, or round out the July Jamboree Questions and Concerns, we hope.

For SEPTEMBER - Desktop Publishing using the QL -- Mr. Smith. Vern will give us the secrets on How-To generate a CATS newsletter second to none, I hope.

For OCTOBER - T/S Telecommunications -- Mr.Greene. Stephen will emphasise TS-1000 computer-modem hook-up and local use.

HARDWARE LIBRARY?

We have a software library, so why not one for hardware? Well, the July meeting Questions and Answers Hardware Jamboree may get us started in developing one -- one where we document the cure (answer) to each pain (question) our membership and readers have concerning hardware for Sinclair computers. So please write down your IF questions and get them to Mannie Quintero (ph 703/354-2037) at, or before the June meeting, but no latter than June 20th, by hook, crook, or modem (phone).

Mannie will compile all the Q's for the July meeting and chair it, searching and documenting the A's to match the Q's. Later we can publish the Q's with their respective A's as the Hardware library, and maintain it over time. This way new members can catch-up quickly and old timers can refer back to past solutions when needed.

Non-CATS members with newsletter subscriptions are most welcome to mail their Q's, also, to Mannie Quintero, 4375 Greenberry Lane, Annandale, VA 22003.

NEW WORKSHOP

During the April "Graphics" presentation, I proposed to start-up a C(over) Y(our) A(natomy) Economics/Investors (?) Workshop using Sinclair computers for that purpose. A few members expressed interest, so we are going to go ahead and meet from Noon to 2 PM at each CATS meeting to share experiences, info, ideas, strategies, etc., on How-to and What-to keep track of on our computers.

In the mad-mad world of US and International money matters computerized financial info can hopefully keep us abrest of what the money (hungry) monguls are up to and help keep us in-step with them. So join us.

For those of you who are interested in this subject, get in on the ground floor at our first formal get-to-gether at the June meeting.

SPECTRAMONITOR REVISITED

I find the SPECTRAMONITOR program in Vol.7 of the CATS library works fine on my 2068 and I use it a lot for disassembly.

But there is one problem (on either machine);it does not recognize the literals which follow the calculator opcode (Restart 28h). It gives erroneous readouts which may even affect the following opcode.

The calculator's very useful in M/C programs so this is a real nuisance. For example, a short M/C series with five literals comes out as:

```
65000 EF        RST  28H
65001 A4        AND  H
65002 A1        AND  C
65003 0138C9    LD   BC,51512
```

The 24K Internal NVM by V. Lee

ZX Appeal, Vancouver Sinclair User Group, April 88

Back in 1986, the July edition of ZX Appeal and the September edition of Syncware News published an article on how to install 8K of non-volatile memory inside a TS1000. It allowed us to have the benefits of the Hunter Board to store not only machine code utilities, but Basic programs as well. With 32K NVM now available, new software have been written to take full advantage of this additional memory. Let's upgrade our 8K to our 24K NVM. Designed to work with the TS1016 Rampack, this new memory sits in the 8-16 and 32-48K region.

This entire circuit is built right inside the computer using 28 gauge ribbon cable. A soldering iron with a ground is required. And ground yourself by touching the regulator heatsink before handling the ICs. The keyboard ribbon will present a problem. Extending it with standard ribbon cable may allow it be connected. I decided to leave it disconnected and run an external keyboard. Note that all the signals from the keyboard diodes are taken from the cathode side. And MREQ, WR, and ROMCS signals are taken from the rear card edge connector. Look for a TS1000 that has its internal Ram chip socketed. Otherwise a socket will have to be installed. A ZX81 with a 28 pin socket can also be used, but changed the jumper beside pin 21 from L1 to L2. This switches the signal from VCC to A10.

Begin by installing the 74LS10. This chip decodes the M1 line to allow machine code to run in the 32-48K region. The pins are flatted out and the chip sit backwards on top of the Z80 CPU. This allows easier access to the signals. Remove the Z80 from the board when you're soldering to it. A Reset switch is also thrown in. Remove the ULA chip from its socket and bend pin 10 outward and connect it to pin 8 of the 74LS10. If you've never added a heatsink to the ULA chip, I would recommend purchasing one to increase the life for this IC. 40 pin IC heatsinks are available through various electronic outlets. Make all the necessary connections, install the chips, plug in the Rampack and apply the power. If the inverse K doesn't appear, disconnect the power and recheck all your connections.

Next, install the 74LS138. This decoder chip acts as the ON/OFF switch for the 6264. For test purposes, connect pin 3 of the 74LS138 to a 330 ohm resistor to ground.

Install only one 6264 at this time. Pin 2 is bent out and connected to the third keyboard diode while pin 23 is bent out and connected to the first diode. Pin 27 is bent out and connected to the Write Protect switch. Pin 28 is bent out and is connected through a diode to VCC and through a diode to 3VDC. Pin 1 is bent out and is not connected. Tie pin 20 to pin 22 and connect them to pin 13 on the 74LS138. Connect the negative end of the battery to pin 14 on the 6264. This pin, along with the rest of the remaining pins, are connected to the socket. Close the Write protect switch and apply the power. Do not plug in the Rampack. 8K of memory has been placed in the 16-24K area. If the inverse K dosen't show up, remove the power and recheck all the connections. If you peek into location 16389 you should get 96. Test the other two ram chips with this procedure.

Disconnect the 330 ohm resistor and connect pin 3 of the 74LS138 to the last keyboard diode. Disconnet the ram chip and stack the three ram chips on top of each other. All the pins are joined to their respective pins except for pins 20, 22 and 27. Each pins 20 and 22 on the 6264 are tie together and joined to their proper pins on the 74LS138. Pin 27s are connected to their proper Write protect switches. Since this is the final assembly, use care in the placement of the wiring, especially behind the 6264. The screw for the casing runs through this area. The Reset switch, the Write protect switches, and the battery holder are all mounted on the outside.

Once completed, install the Rampack and plug in the power. Close the Write protect switch, poke 192 into location 16389 and execute NEW. Ramtop should now be set to 48K. Use the routine from Vol 4#1 to check out the ram in the 8-16K region.

You now have a 24K Hunter Board built right inside a TS1000 for storing programs and utilities. Or, if you like, reset Ramtop and you have a 32K system for storing variables. You're also ready for Hi-res software from Silicon Mtn. using WRX16 core routine. Achieve an incredible display.

For those who crave for more memory, next time we'll look at the 32KX8 static ram chips for the 96K NVM system.

TEXT87: A REVIEW by Peter Hale

Rarely does software arrive on the QL scene with a potential for dramatic changes in the way the computer is used, but TEXT87 is such a program.

I only recently received my copy and am not yet familiar with all its features. Otherwise I would be using it to write this newsletter.

Briefly it is a What-you-see-is-what-you-get text editor. It offers all the features that would have made Quill unsurpassed, and gives up little without paying the price of needing to reference dozens of control codes.

It has on-screen prompts and a heirarchical menu, much like the Psion programs. It is happy under Taskmaster but can be multitasked with Control C.

First, you move around a large document and move or erase blocks of text very rapidly.

Second, instead of the Quill's Design feature that commits you to certain parameters for the whole document, TEXT87 uses 'rulers' that set margins, tabs, justification and line-feeds. Rulers can be saved and recalled for later use in different parts of documents or other documents.

Third, you may have multiple lines in headers and footers.

Fourth, you may 'Go to' any part of the document directly by specifying a line number, and the range of cursor controls is wider than for Quill.

Fifth, (I am always in favor of a fifth) Quill documents may be easily imported through a special routine. Other text files can also be imported in a general routine.

So how is this any better than a decent editor?

One. Where Quill lets you visualise bold, normal, underlined and high or low script on screen, TEXT87 lets you visualise all type faces including proportional, elite, italics and double-wide through extensive use of red white and green as well as on-screen character spacing.

Two. Numerous fonts are available in the deluxe edition of TEXT87 and there is the facility to design your own fonts. These show on screen and may be expanded up to quadruple height.

Three. Normal printing uses only the fonts available in the printer, but TEXT87 also has a screen dump to print out in graphic mode to capture overhigh characters and fancy type faces.

Four. TEXT87 comes with a number of printer_dat files covering a range of printer types. You select one to be loaded on start-up after configuring a working copy of TEXT87 for your own use. But if you change printers, you can change printer_dats from within the program.

Five. Up to six 'frames' on a page are possible. For comparison, Quill has three frames - header, footer and text body. TEXT87 can have four columns in the text body.

You enter the text as a single column as wide as one column on the finished page. At print time, TEXT87 calculates which lines are to be printed and they are printed in columns as in a newspaper.

Thus if the page is 60 lines long, to be divided into 2 columns, lines 1 and 61 are printed in a single pass with the column space between. Next lines 2 and 62 are printed and so on to the end of the page. Page two has lines 121 and 181 on the first line. And so on to the end of the file.

Not everything is peaches and cream. The 20 page documentation is sketchy on details and doesn't always cover features that suddenly are offered in the prompts.

TEXT87 is rich in defaults but offers no overwrite protection. No file handling is offered within the program. You must revert to SuperBASIC (with CTRL-C) to run a directory or copy or delete files. This is a minor annoyance only because I am so used to the ease of using these features in Quill. In truth leaving out such features lets you access the full potential of any front ends or Toolkits that you have installed.

TEXT87 is not yet easy to use. It has many marvelous features I do not yet understand and have not mentioned here, including the choice of setting parameters in either inches or the metric system! It is tedious to set up your working copy with the limited instructions, and the prompts are sometimes elegant, sometimes maddenly obscure.

Yet, I have realised that with practice it will become my wordprocessor of choice and I will not begrudge (in time) the six months delay it took to arrive after I had sent my £40.00 (no US$, no VISA) to Software87, London. UK. £10 more for the multiple fonts and the font modifier. (£1.00 = @ US$ 1.90).
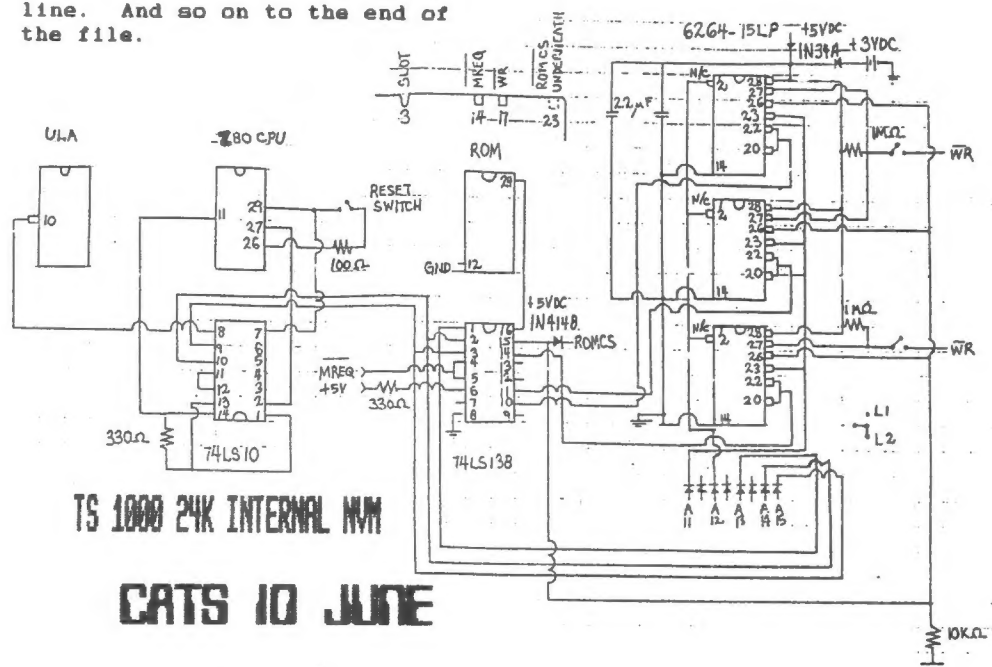
TS 1000 24K INTERNAL NVM

CATS 10 JUNE

CLASSIFIED ADS

WANTED

Uncle John Wants You!

HERE'S THE CHANCE TO DO SOMETHING FOR THE GROUP

John Riley, our Tape Librarian,
is trying to assemble a tape of
Astronomy programs. He needs
volunteer(s) to key in some of
the programs. Contact him direc-
tly or through the CATS P.O. box.

ATTENTION: TS1000/1500 COMPUTER USERS

Continued from last month

Editor's note: This library
listing was compiled BEFORE Mark
Fisher gave Ted a HUGE box of
1000 tapes. A listing of these
tapes is forthcoming but will
have to wait till Ted's heart
stops pounding!

```
#207 %
Copycat[,52]              Mand 1000[,57]
F.P. Demo[,52]
BJ 4 2[4,15]
Interp with RPN[5,07]
Comp. Int.[,42]
```

T\S Program Cassetts

[02 % 2K RAM   03 % 16K RAM]

BUSINESS

```
#02-1000 Statistics
#02-1001 Money Analyzer 1
#03-1000 VU-CALC
#03-1001 Inventory Control
#03-1002 Manufacturing control
#03-1003 Critical Path Analysis 1
#03-1004 The List Manager
#03-1005 Stock Market Tech. Analysis 1
```

HOUSEHOLD

```
#03-2000 The Organizer
#03-2001 The Budgeter
#03-2002 The Loan\Mortgage Amortizer
#03-2003 The Checkbook Manager
#03-2005 The Carpooler
#03-2007 The Stock Option Analyzer
#03-2008 The Home Improvement Planner
#03-2009 The Home Asset Planner
#03-2010 The IRA Planner
#03-2013 Personal Finance Planner
#03-2014 Portfolio Analysis
#03-2015 Heating System Analyzer
```

EDUCATION

```
#02-3001 Power Pack 1
#02-3002 Geometry 1
#02-3003 Algebra 1
#03-3000 Super Math
#03-3001 States and Capitals
#03-3002 The Flight Simulator
#03-3005 Punctuation Master
#03-3007 Capitalization Master
#03-3008 E.E.1 - Filter Design
#03-3010 Language Usage
#03-3011 Superdoodles
#03-3012 Total Triangles
#03-3015 Conversational French
#03-3016 Conversational Spanish
#03-3017 Spelling Bee
#03-3018 FUNdamentals of Math
```

ENTERTAINMENT

```
#02-4003 Mixed Game Bag III
#03-4004 Grimm's Fairy Trails
#03-4005 The Mixed Game Bag 1
#03-4006 Supremaze
#03-4011 Stock Market Game
#03-4012 Frogger
#03-4017 Tarot [copy]
#6-13 Space Raiders
#6-14 Flight Simulation
```

Spectromonitor Revisited-Continued from Page 8

If modified, the program can
give an accurate read-out for
the same six M/C bytes:

```
65000 EF          RST  28H
65001 A4A101      CALC
65004 38          CALC
65005 C9          RET
```

To modify the program, just
insert the following lines:

305 LET Z=0

**2002 IF Z THEN LET M$="CALC":
LET NBYTES=3: RETURN**

**4095 IF Z AND PEEK T=56 AND PEEK
(T-1)<>0 AND PEEK (T-1)<>51 AND
PEEK (T-1)<>53 THEN LET Z=0: LET
NBYTES=T-LOC+1: GO TO 4110**

4115 IF I0=239 THEN LET Z=1

If SAVEing the program, first
enter CLEAR to speed up the SAVE
and LOAD processes. Add LINE 1
after the SAVE instruction for
Automatic start.

CATS 11 JUNE

H.E. Weppler

The Capital Area Timex Sinclair

Users Group

is a not-for-profit group devoted to serving the interests of those who own, use, or are interested in the Timex/Sinclair family of computers.

Executive Board

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1st Vice President — Hank Dickson
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CATS maintains a gratis exchange of newsletters with approximately 30 users groups across the U.S. Clubs not sending a n/l to us for six months are automatically taken off the list.

Meetings

Monthly meetings are held from 11 AM to 4:30 PM, on the second Saturday of each month, at the New Carrollton Public Library.

Newsletter

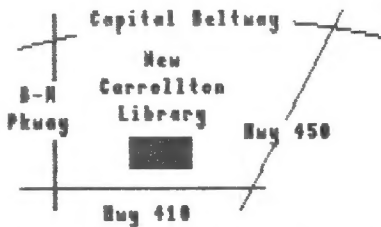Memberships cost $18 per year, and include all privileges (access to libraries, group buys, etc.). A newsletter subscription only is available for $12 per year.

Networks

Timex SIG on Compuserve: Wednesday night, 10 P.M. Eastern time (GO CLUB).
Q2x net: (505) 522-7081 FIDO net 15, node 6. East Coast dial (703) 547-4815 FIDO net 18, node 9.

CATS Newsletter
P.O. Box 467
Fairfax Station, VA 22039

Capital Beltway
New Carrollton Library
B-W Pkwy
Hwy 450
Hwy 410

FIRST CLASS MAIL

The next meeting of CATS will be held on:

Saturday, June 11, 1988   11:00 AM Hardware Workshop
                             2:00 PM General Meeting

At: New Carrollton Public Library
7414 Riverdale Road (Hwy 410), New Carrollton, MD

IF YOU ARE NOT A MEMBER OF CATS, THIS IS THE ONLY ISSUE YOU WILL RECEIVE

DUES: $18 per year, per family